

**Remarks**

**General:**

Claims 30-55 were pending in the application before this amendment. Claims 43-47 have been cancelled in this amendment. Claims 1-29 and 56 were previously cancelled. Thus, claims 30-42, and 48-55 are currently pending in the application after entry of this amendment. Claims 30, 48 and 50 have been amended to recite that the electronic circuit on the separable treatment component is for communicating and/or transmitting data between the separable treatment component and the water treatment apparatus when the separable water treatment component is mounted to the apparatus.

No new matter has been added to the application.

**35 U.S.C. § 102:**

Claims 43-47 have been rejected as anticipated by U.S. Patent No. 5,674,381 (Den Dekker). Applicants respectfully submit that the remarks and amendments in the prior response adequately distinguished claims 43-47 from the Den Dekker reference. However, for purposes of expediting examination of the present application, claims 43-47 have been cancelled.

Claims 48, 49, 50-52 and 55 have been rejected as being anticipated by U.S. Pat. No. 6,080,313 (Kelada). The Examiner has taken the position that all the elements of these claims are disclosed in Kelada. In particular, the Examiner has noted that Kelada discloses:

Also disclosed are an electrical circuit (column 11, line 64-column 12, line 21) with component 22 sterilizing or sanitizing the outlet portion of the host apparatus including its dispenser portion. The electrical circuit is integral with the floorboard or cover and mounted thereto (column 12, lines 2-6) for claims 51-52.

Applicants respectfully submit that Kelada does not disclose the invention as recited in these claims.

Kelada discloses a water purification system that includes a series of cartridges that are connected to a base unit. The base unit (flowboard 12) includes all the conduits and valves for controlling the flow through the various cartridges. A circuit 230 is disclosed for providing electricity to the flowboard in order to power the following features: an electric interlock means

240 for detecting whether the cover is in place while the power is on (col. 12, lines 2-6); a solenoid valve 24 (col. 12, lines 7-9); a time meter and night light (col. 12, lines 9-10); a UV lamp assembly (col. 12, lines 11-12); a fan motor, thermoelectric means, water quality measuring means, clock and/or flowmeter (col. 12, lines 12-16); a pressure sensing means to detect water stoppage (col. 12, lines 16-18); and a conductivity meter and control to indicate concentration of dissolved solids (col. 12, lines 18-21.) The circuit is shown in Fig. 15.

There is no discussion nor description in Kelada about an electronic circuit being on a separable treatment component (such as any of the cartridges) that, when the treatment component is installed, cooperates with an electronic circuit in the host apparatus for communicating and/or transmitting data between the separable treatment component and the water treatment apparatus. On the contrary, the electrical circuit in Kelada simply supplies electrical power to operate certain components on the apparatus. There is no data transmitted or even capable of being transmitted.

Specifically, with respect to claim 48, there is no electronic circuit included on the cartridge with the ion exchange resin that communicates with the flowboard. The cartridge with the ion exchange resin in Kelada is a standalone cartridge without any electronic communication with the flowboard, and definitely no data is transmitted. Thus, claim 48 is not anticipated by Kelada. Claims 49, 51 and 55 depend from claim 48 and, therefore are also not anticipated by Kelada.

With regard to claim 50, this claim requires that the separable treatment component is adapted to sanitize and/or clean one or more parts of the host apparatus. The Examiner states on page 3 of the Office Action that the component 22 sterilizes or sanitizes "the outlet portion of the host apparatus including its dispenser portion." It is not clear where this is mentioned in Kelada in relation to the component 22. According to Kelada, component 22 is an ultraviolet cartridge (Fig. 5). However, Kelada states in Column 9, lines 41 and 42 that the "germicidal lamp" must operate constantly "since ultraviolet energy has no residual effect in water." The UV lamp is located completely within the cartridge 22 and configured to irradiate the water flowing through the filter. See, Fig. 5. The UV light does not escape from the cartridge. As such, the ultraviolet energy is not sanitizing anything outside of the cartridge, such as an "outlet portion of the host apparatus."

Furthermore, claim 50 also recites that the electronic circuit on the separable treatment component is configured such that, when the treatment component is installed, the electronic circuit cooperates with the electronic circuit in the host apparatus for communicating and/or transmitting data between the separable treatment component and the water treatment apparatus. That is, when the separable treatment component is mounted to the apparatus a circuit is completed such that electronic communication and/or transmission of data is possible between the component and the host apparatus. Kelada does not disclose such a separable treatment component. The only electrical connection between the cartridge 22 in Kelada and the apparatus is through the upper ends of the UV lamp shown in Fig. 5. However, since that is a separate end of the cartridge from where the cartridge connects to the flowboard, it requires a separate connection to provide any communication at all. Furthermore, the drawings do not depict whether there is communication with the host apparatus. The circuit in Fig. 15, while being a complete circuit, does not indicate that the communication is with the flowboard. More importantly, the circuit only provides communication of electricity. There is no discussion of there being any data communicated between the cartridge and the host apparatus. Thus, the Kelada does not disclose an electronic circuit on a cartridge that permits data communication with the flowboard when the separable treatment component is mounted to the flowboard. Thus, claim 50 is not anticipated by Kelada. Claim 52 depends from claim 50 and, accordingly, is also not anticipated by Kelada.

Based on the foregoing, Applicant respectfully submits that the §102 rejection of claims 48, 49, 50-52 and 55 based on Kelada is traversed and, therefore, should be withdrawn.

**35 U.S.C. § 103:**

Claims 30-40 have been rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Pat. No. 6,080,313 (Kelada) in view of U.S. Pat. No. 6,379,560 (Tilip et al.) and U.S. Patent No. 6,067,668 (Rela). The Examiner has taken the position that Kelada discloses most of the elements recited in claims 30-40, except for the sterilizing component or cartridge being adapted to be added in place of an existing water treatment component. The Examiner contends that it would have been obvious to modify the device in Kelada to add these features in light of the disclosure in Tilip et al. (which the Examiner states discloses cartridge modules with UV components being insertable at additional locations in a treatment system) and Rela (which the

Examiner states teaches a water treatment system with cartridge modules individually replaceable and insertable in different arrangements.)

Claim 30 is similar to claim 50 and recites, among other things, that the separable treatment component includes an electronic circuit that, when the treatment component is installed, cooperates with an electronic circuit in the host apparatus for communicating and/or transmitting data between the separable treatment component and the water treatment apparatus.

As discussed above, Kelada discloses a water purification system that includes a series of cartridges that are connected to a base unit. The system includes a circuit (electrical wires) for providing electricity to control a number of features such as interlocks, valves, timers, a UV lamp assembly, a fan motor, a thermoelectric means, etc. With all those various electrical uses mentioned in Kelada, there is no discussion nor description in Kelada about an electronic circuit being on a separable treatment component (such as any of the cartridges) that permits data communication or transfer between the separable treatment component and the water treatment apparatus when the separable water treatment component is mounted to the apparatus.

Also, the ultraviolet energy in the cartridge in Kelada does not sanitize anything outside of the cartridge, such as an "outlet portion of the host apparatus". At most, Kelada irradiates an outlet portion of the cartridge, i.e., the spigot on the cartridge itself.

Neither Tilip et al. nor Rela remedy these basic deficiencies in Kelada. Tilip et al. was cited by the Examiner as teaching "a system of cartridge modules with UV components being insertable at additional relative locations in the overall treatment system." Tilip et al. does not disclose an electronic circuit on a separable treatment component that data communication and/or transfer between the separable treatment component and the water treatment apparatus when the separable water treatment component is mounted to the apparatus.

Rela<sup>1</sup> was cited by the Examiner as teaching "a water treatment system with cartridge modules individually replaceable and insertable in different arrangements." As with Tilip et al. and Kelada, Rela does not disclose an electronic circuit on a separable treatment component that permits data communication and/or transmission between the separable treatment component and the water treatment apparatus when the separable water treatment component is mounted to the apparatus.

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<sup>1</sup> It should be noted that Rela published on February 20, 2003. The present application is entitled to a foreign priority date of March 8, 2002, which predates the publication.

Accordingly, based on the foregoing, it is respectfully submitted that claim 30 is patentable over the combination of Kelada, Tilip et al and Rela. Claims 31-40 depend from claim 30 and, therefore, are also patentable over the combination of these references.

Claims 41 and 42 have been rejected as being unpatentable over Kelada in combination with Tilip et al and Rela, in further view of Den Dekker. The differences between the current claims and Den Dekker have been discussed in detail in the prior response. Furthermore, Den Dekker does not disclose an electronic circuit on a separable treatment component that permits data communication and/or transfer between the separable treatment component and the water treatment apparatus when the separable water treatment component is mounted to the apparatus.

Hence, it is respectfully submitted that claims 41 and 42 are patentable over the combination of Kelada, Tilip et al, Rela and Den Dekker.

Lastly, claims 53 and 54 were rejected as being unpatentable over Kelada in view of Den Dekker. The Examiner has cited Den Dekker as disclosing a database and encryption. Claims 53 and 54 depend from claim 48. As discussed above, with respect to claim 48, Kelada does not disclose an electronic circuit on the cartridge with the ion exchange resin that communicates with the flowboard. The cartridge with the ion exchange resin in Kelada is a standalone cartridge which provides no electrical communication with the flowboard. Den Dekker does not remedy this deficiency since there is no disclosure in Den Dekker of an electronic circuit on a cartridge with an ion exchange resin that communicates with a host apparatus.

Thus, it is respectfully submitted that claims 53 and 54 are patentable over the combination of Kelada and Den Dekker.

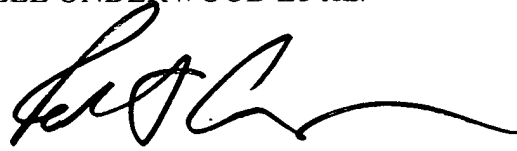
**Conclusion:**

It is respectfully submitted that all pending claims are in condition for allowance, and respectfully requested that allowance be granted at the earliest date possible. Should the Examiner have any questions or comments regarding Applicants' amendments or response, the Examiner is asked to contact Applicants' representative below.

Respectfully submitted,

LEE UNDERWOOD *ET AL.*

By:

A handwritten signature in black ink, appearing to read 'Robert E. Cannuscio', written over a horizontal line.

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